

REMARKS

Claims 1 to 19 are in the application, wherein claims 6 to 13 are withdrawn from consideration by the Examiner as being for a non-elected invention. Claims 1 to 5 and 14 to 19 are rejected under 35 U.S.C. §112, second paragraph, based upon several grounds of indefiniteness which are particularly addressed hereafter, and claims 1, 2, 5, 14, 15 and 17 to 19 are rejected under 35 U.S.C. §102(b) as being anticipated by JP 49-44857 (Toyo Kogyo).

The Office Action has been considered and, pursuant thereto, Applicants hereby seek to address those points expressed in the Office Action in connection with elements of indefiniteness which are perceived by the Examiner to exist in the claims and to further amend the claims in a manner to more clearly distinguish the invention over the invention disclosed in JP '857 to Toyo Kogyo.

At the outset, it is believed from discussions between the Examiner and Applicants' attorney at the interview of August 17, 2004, that the Examiner recognizes the existence of patentable subject matter in the present application (see "Continuation of Substance of Interview" attached to the Interview Summary). It is further apparent from the several elements of indefiniteness identified in the Office Action, that the Examiner remains dissatisfied with the clarity with which the invention is defined by the claims.

Going first by way of background to a concise description of Applicant's invention, the invention involves a metal member to be wrapped by the casting thereabout of molten metal that forms a cast wrapping. According to this invention, the surface of the metal member is provided

with particularly formed projections, the surfaces of which are configured in order to enable them to be readily and effectively metallurgically combined in the cast metal subsequently deposited on the member. With reference to FIG. 1f of the drawings, metal members produced according to the invention are produced by an extrusion process by means of which a metal member, in the form of a billet 13, is forced through an opening in a die 17 whereby a large sliding resistance is exerted by the die on the metal member. Because the billet is incapable of sliding smoothly through the die, its outer surface is subjected to an abrading or scarifying action which causes the surface material of the billet to have produced thereon radial projections or tears. As illustrated by FIGS. 7 to 10, 15 and 16 of the application, the concerned projections have no uniform or regular shape; however, they are characterized by a configuration in which they have a maximum width dimension at their tip end portions. Such configuration characteristic is best depicted in FIGS. 10 and 11 of the drawings.

This structural configuration of the projections on the surface of the concerned metal member is believed to be clearly recited in the claims in the application as a result of the amendments made herein to claims 1 and 14, from which the other claims being considered in the application depend. Claim 17 is further amended in order to cure a perceived indefiniteness cited by the Examiner.

From the foregoing, it is believed that the claims in the application, as now amended, clearly define over the structure disclosed by JP '857 wherein, contrary to the claimed invention, the projections presented in FIG. 2 of the reference by numeral 5, are regularly disposed elements having a uniform shape as would be expected since the projections are produced by a rolling operation.

Applicants thus respectfully request that the Examiner reconsider and withdraw the rejection

under 35 U.S.C. §102(b) for the reason that there is clearly no anticipation of Applicants' invention presented by this cited reference.

Going now to the several elements of perceived indefiniteness under 35 U.S.C. §112, second paragraph, Applicants submit that these elements are addressed herein according to the reference designations of the Office Action, as follows:

- I. 1. The question raised by the Examiner concerning the phrase, "extruded roughened surface defining tears producing irregularly formed projections", is believed to be obviated by the amendments made to claims 1 and 14 herein, particularly when considered in light of the description of the invention contained in the specification as explained hereinabove.
2. The word "defining", or derivatives thereof, in the claims carries the meaning ascribed thereto in dictionaries; i.e., "to fix or mark the limits of" (see Webster's Ninth New Collegiate Dictionary).
3. According to the instant claims, the limits of the roughened surface portion of the metal member are fixed by a plurality of irregularly formed projections which extend outwardly from said surface. The limits of the projections of the roughened surface are also defined as having a width which is maximum at a tip end portion, such width being wider than a maximum width of the base portion of the projections. (Note that this limitation is not met in any of the FIG. 2 embodiments shown in JP 49-44857. In the upper two embodiments of FIG. 2, the tip ends of the projections are clearly

smaller in width than the width at the base portions. In the embodiment shown in the lower view of FIG. 2 (and in FIG. 4) the upper or tip end 2, while shown to be wider than the body 3₁ of the projection upwardly of the base portion, it is clearly not wider than the base portions, i.e., the body immediately adjacent the member 1).

The beneficial effects of the claimed structure is explained in the specification from page 2, line 29 to page 3, line 5.

4. Claims 1 and 14 require tearing of the surface. Note that the claims each state that there is an extruded roughened surface portion defined by tears producing a plurality of irregularly formed projections ...”.
5. Claims 1 and 14, as amended, each clearly specify that the “roughened surface” of the member is “defined by surface tears producing a plurality of irregularly formed projections.” Thus, the claim clearly requires the existence of projections on the member surface which are produced by tearing the surface.
6. The specification at page 3, lines 6 to 21, explains the extent to which the projections are “irregularly formed”.
7. According to the specification, at page 3, line 6, *et seq.*, the concerned metal member is said to have an irregular, uneven surface. Also, at page 3, lines 16 to 20, the projections are characterized as being “irregular”. At page 5, lines 4 to 6, it is stated that the projections may be arranged “at irregular intervals”. Thus, it is clear that the concerned projections possess irregular shapes and are disposed at irregular positions

along the surface of the member to be wrapped.

- II. For the sake of consistency with the language of claim 14, the word “project”, as amended in claim 1, line 3, is hereby changed to “extend”.
- III. The expression, “projection-defining tears” in claims 15 to 18 simply means that the projections which exist on the surface of the member are defined by “tears.” This is explained in the specification from page 8, line 25 to page 9, line 7.
- IV By the amendment hereof to claim 17, it is believed that the identified lack of clarity is cured.

Finally, with regard to the position expressed by the Examiner in item IV in the Response to Amendment section of the Office Action, Applicants respectfully submit that the Examiner is incorrect in stating that the Toyo Kogyo reference (JP 49-44857) shows projections “having the shape encompassed by that described in the claims.” On the contrary, consideration of the reference clearly indicates that none of the embodiments of the projections of the reference are such as “wherein a maximum width of said projections at a tip end portion thereof is wider than a maximum width of the projections at a base portion thereof” as required by all of the claims in the application.

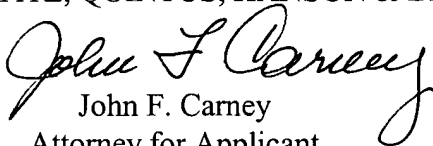
For the foregoing reasons therefore, it is submitted that all of the claims now in the application clearly define Applicants' invention so as to accord with the requirements of 35 U.S.C. §112, second paragraph, and to distinguish such invention over the structure described in the cited Japanese reference. The claims are accordingly submitted as being patentable and their early allowance is respectfully solicited.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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